

# SECURITIES AND EXCHANGE COMMISSION

## FORM 10-K

Annual report pursuant to section 13 and 15(d)

Filing Date: **1999-03-26** | Period of Report: **1998-12-31**  
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### FILER

#### SCAN OPTICS INC

CIK: **87086** | IRS No.: **060851857** | State of Incorporation: **DE** | Fiscal Year End: **1231**  
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SIC: **3577** Computer peripheral equipment, nec

Mailing Address  
169 PROGRESS DR  
MANCHESTER CT 06040

Business Address  
169 PROGRESS DR  
MANCHESTER CT 06040  
8606457878

UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 10-K

(Mark One)

(X) Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934  
For the fiscal year ended DECEMBER 31, 1998

( ) Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934  
For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File No. 0-5265

SCAN-OPTICS, INC.

(Exact name of registrant as specified in its charter)

DELAWARE

06-0851857

(State or other jurisdiction of incorporation or organization) (I.R.S. Employer Identification Number)

169 PROGRESS DRIVE, MANCHESTER, CT

06040

(Address of principal executive offices)

Zip Code

(860) 645-7878

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act: NONE

Securities registered pursuant to Section 12(g) of the Act: COMMON STOCK,  
\$.02 PAR VALUE

(Title of Class)

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. ( X ) YES ( ) NO

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. [X]

The aggregate market value of the voting stock (common) held by non-affiliates of the registrant: \$26,489,512 as of March 22, 1999.

The number of shares of common stock, \$.02 par value, outstanding as of March 22, 1999 was 7,370,482.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive Proxy Statement, relating to the 1999 Annual Meeting of Stockholders, which will be filed pursuant to Regulation 14A with the Securities and Exchange Commission not later than 120 days after the end of the fiscal year, are incorporated by reference and included in the following:

- Part III-Item 10 - Directors and Executive Officers of the Registrant
- Part III-Item 11 - Executive Compensation
- Part III-Item 12 - Security Ownership of Certain Beneficial Owners and Management

PART I

ITEM 1 - BUSINESS

Scan-Optics, Inc. (the "Company") was incorporated in Delaware in 1968 and has its principal office at 169 Progress Drive, Manchester, Connecticut 06040.

The Company has been a leader in applying technology to high-speed recognition, data entry and imaging solutions for the past 31 years. The Company was among the first to develop Optical Character Recognition (OCR) technology for data capture and is a leading provider of image scanning systems worldwide. Leveraging the core competencies of character recognition, image processing, paper handling and data entry, the Company has transitioned to become a provider of solutions that focus on the needs of its customers.

The Company has transformed into three distinct business segments, product and solution sales, maintenance revenue and contract manufacturing.

The Company combines technology, experience and expertise to develop cost-effective solutions for applications in the government, healthcare, transportation, financial and order entry industries. The Company's ability to offer customized and integrated system solutions has helped customers all over the world to meet their productivity and profitability objectives.

Access Services is a hardware maintenance division of the Company that provides third party and proprietary maintenance services. The division provides hardware maintenance support for equipment related to imaging, automated data capture, document processing and information management as well as other forms of electro-mechanical equipment.

During 1998, Scan-Optics formed its Contract Manufacturing division to provide electro-mechanical assembly and test services for equipment such as mail processing systems, advanced security systems, large-format scanners, plotters and printers, and other large-scale electro-mechanical devices.

A key component of the Company's business strategy is based upon accretive acquisitions of businesses or assets that add value either from a strategic or tactical perspective. The Company completed two such strategic acquisitions during the second quarter of 1998 as discussed on pages 35 and 36.

PRODUCTS

The Company designs, manufactures, markets and services information processing systems which use "state of art" technology for imaging, automated data capture, document processing and the management of information. These systems employ high speed paper movement, OCR/ICR (Intelligent Character Recognition), high speed image capture, image storage and retrieval systems, image information processing, key-entry, microfilming, ink jet printing, multi-pocket page and/or document sorting, local area networking, client/server PC processing, communications software, software/hardware integration, application software development, and professional services.

These key product disciplines utilize integration skills that leverage the core competencies of the Company to provide broader solution alternatives. These core competencies include:

- Line of Business Domain Knowledge
- Professional Services
- Network Services
- High Speed Paper Handling
- Document Scanning
- Image Enhancement Algorithms and Image Quality
- Character Recognition (OCR, ICR, Barcode, Mark Sense, etc.)
- Key-From-Image and Key-From-Paper Data Entry
- Image Storage and Retrieval
- Customer Relations - Hardware Maintenance
- Contract Manufacturing
- Value Added Engineering Services and Solutions

CORE COMPETENCIES

Line of Business Domain Knowledge  
The Company provides solutions that are proven and are in production. The Company has the domain knowledge to provide total solutions in the following industries: government, healthcare, transportation, financial and order entry. That domain knowledge is utilized in the product suite of applications:

#### Professional Services

In order to provide a total solution to the customer, the Company has provided a consultative approach to integrate solutions with proven core competencies in the following areas:

Paper Handling	Application Expertise	Project Management
Installation	Training	Archival / Retrieval
Custom Engineering	Development Tools	Forms Design
Open Systems	Neural Technology	System Integration
Microfilming	OCR Technology	Industry Standards
Imaging	Networking	

The Company has provided customized software support to its customers since 1968. The Company's scanners and assorted network system products provide the hardware platforms for delivering advanced high-volume forms processing, imaging, and document management system solutions, especially in government, healthcare, transportation, financial and order entry. This customized software support enables the Company to provide full production-ready application systems tailored to the customer's specific needs.

This support is provided through professional services offered by the Company. The Company also provides individual, custom software services as requested by the customer. In this way, the Company can either provide the entire package of software support or simply provide those services that the customer desires.

#### Network Services

Network Services specializes in providing professional network integration services to customers of all sizes, from small companies with simple local area networks to large organizations with enterprise-wide wide area networks. The Company offers solutions for every networking requirement including data, voice, and video. The Network Services staff is comprised of qualified professionals that have earned hardware and software vendor certifications such as the Novell CNE, Microsoft MCSE, Compaq ASE, IBM PSE and others. The Company's employees are experienced with Ethernet, Fast Ethernet, Token-Ring, and FDDI networks utilizing the IPX/SPX, TCP/IP, and NetBIOS/NetBEUI protocols. The operating systems supported include Novell NetWare, Microsoft Windows NT, Windows 95, Windows 98, DOS/Windows, and OS/2.

#### High Speed Paper Handling

The Company is a leader in patented high-speed paper handling systems. The Series 9000 scanner has over 250 systems installed worldwide. The Company has over 445 scanning systems installed worldwide processing over 23 million pieces of paper on a daily basis.

#### Document Scanning

The Company has been addressing the high-speed, high-volume, page/document processing marketplace since its inception in 1968. During 1992, the Company introduced the Series 9000 generation of scanners. This system launched the Company into the full page image and recognition market. Full page document processing includes front and back imaging, OCR reading, serialization and microfilming of a document in a single pass. During 1994, the Company introduced the Model 7800 scanner which captures images that can be utilized to improve Customer Service, Order Processing, and Data Capture. In 1998 the Company introduced the Model 7400 scanner, targeted at the mid-volume production market.

#### Image Enhancement Algorithms and Image Quality

Image enhancement algorithms and image quality are priority enhancement activities for the Company. The program to continually enhance their data processing attributes is driven by the Company's large customer base. The need for continuous improvement helps customers reduce their bottom line expenses for processing a growing amount of data. Image enhancement starts at the scanner capture system. The Company provides the fastest page capture and image system on the market today. This processing is carried forward into the Company's OCR, Key-From-Image and Image Storage and Retrieval Systems. Management believes that the Company's image quality is among the best in the industry. Electronic image processing and storage are rapidly overtaking the use of microfilm and the Company is on the leading edge of this technology with its hardware and application software solutions.

#### Character Recognition

The Company has been developing and providing its own character recognition since 1968. This recognition has always included the basic in-line recognition of machine printed, handprinted, and mark sense forms. With the introduction of the Series 9000 system, the Company has expanded this recognition to include barcode, patch code, special educational score testing analysis, and special

stamp recognition. In addition to these recognition processes, the Company has integrated and developed neural recognition technologies that support both in-line and post capture recognition. The Company's character recognition technology was enhanced in 1999 with its patented Context Edit capability that brings a new level of data purification to the integrated solutions.

#### Key-From-Image and Key-From-Paper

The Company has been providing complete hardware and software solutions using Key-From-Image (KFI) and Key-From-Paper (KFP) since 1976. This KFI and KFP solution remains important today, using the latest open network and platform designs with Windows, UNIX, Novell, TCP/IP, NT, and other industry standard components. By combining the high-speed scanning systems with the flexibility of KFI and KFP, customers are able to lower their overall data capture and document processing costs while improving the level of data accuracy and availability.

#### Image Storage and Retrieval

The Company's Image Storage and Retrieval solution is based on industry standards and powerful "best in class" components backed by 31 years of experience in high-volume, mission-critical production systems. The solution is an imaging application development environment that is modular and scaleable in design. Due to an open architecture environment, all data, rules, indexes and workflow processes are maintained in an ODBC-compliant or SQL database product. This allows future migration to more powerful and cost-effective operating systems and hardware platforms as dictated by changing organizational and operational requirements.

#### Customer Relations - Hardware Maintenance

The Company has been offering service and maintenance support to its broad customer base since 1968. This support is available with either leased or purchased systems in both domestic and international markets.

In June of 1998, the Company acquired the hardware maintenance division of Access Corporation of Cincinnati, Ohio. This business was combined with Scan-Optics' existing hardware maintenance division to form Access Services, a separate division, dedicated to serving the Scan-Optics customer base and the third party maintenance marketplace.

Service is provided through a network of over 140 service centers worldwide. The Company provides on-site and on-call service with response times of two hours or less. The Company focuses on comprehensive diagnostic routines, modular designs, preventive maintenance procedures and customer surveys to provide its users high system availability to perform mission critical applications.

The Company's customers include government, healthcare organizations, transportation, subscription and catalog fulfillment companies, financial institutions and manufacturers in the U.S., Canada, Latin America, Europe and Asia. The Company maintains high standards of teamwork and customer satisfaction.

#### Contract Manufacturing

Beginning with the customer's plans, Scan-Optics manages each project from concept to completion. The capabilities provided include:

##### Project Management

Engineering and Prototyping

Procurement and Materials Management

Precision Machining, Sheetmetal Fabrication and Welding

Networks/System Integration

Systems Testing

Just-in-Time/Kanban Delivery Systems

Professional Services and Training

Worldwide Field Service

Strong Supplier Partnerships with:

Agency Standards Certification (FCC, UL, LE, CSA)

Commercial Painting and Metal Finishing

Printed Circuit Board Assemblies and Testing

Wire Harness and Cable Assembly and Testing

Specialty Packaging

Worldwide Shipping

#### Value Added Engineering Services and Solutions

The Company has been supplying engineering services and solutions to meet customer needs since introducing its first fully integrated solution in 1976. The solutions include scanning, recognition, Key-From-Image, data entry, and communications. During 1993, the Company was selected to develop a prototype system to process medical claims for a healthcare agency in Japan. This system was designed with 36 stacker pockets for sorting forms; expanded paper handling

capabilities for light-weight, flimsy forms; high resolution image cameras to permit recognition of complex Japanese kanji characters; and software forms recognition for up to 20,000 different document formats.

The Company has been involved in special recognition techniques to process order forms that contain stamps. These stamps are used as an entry into a sweepstakes contest or to select ordered items for a record or book club. The stamps are of a multitude of colors and are successfully processed through the Company's special recognition features. In addition to stamp processing, the Company has been engaged in recognition analysis for educational test scoring. This process is accomplished in full duplex mode at a transport speed of 50 inches per second.

#### SIGNIFICANT CUSTOMERS

In 1998, the Company derived 12% of its total revenue from one customer, Toyo Officemation, Inc., one of the Company's distributors in Japan. In 1997 and 1996, this same customer accounted for 39% and 38% of consolidated revenues. For more information about this customer, see the Outlook section of Management's Discussion and Analysis of Consolidated Financial Condition and Results of Operations.

#### CHANNELS OF DISTRIBUTION

The Company is augmenting its practice of selling directly to end-users and distributors to respond to new opportunities in the marketplace. The focus on providing more complete solutions to customers has stimulated the pooling of resources with selected system integration firms and specialized niche suppliers. The cooperative effort with system integrators and other vendors has introduced the Scan-Optics logo to new markets both domestically and internationally.

#### BACKLOG

The backlog for the Company's products and services as of December 31, 1998 was approximately \$26,445,460. There were no orders outstanding for health claims processing systems to the Japanese government. As of December 31, 1997, the backlog was approximately \$23,139,000, of which \$17,399,000 was for core business. Core business includes all domestic and international orders except those for health claims processing systems to the Japanese government, which amounted to approximately \$6 million as of December 31, 1997. The backlog consists of equipment, software and services to be sold and noncancelable rentals and maintenance due on existing rental and maintenance contracts over the next year. The Company normally delivers a system within 30 to 180 days after receiving an order, depending upon the degree of software customization required.

#### MANUFACTURING

Manufacture of the Company's products requires the fabrication of sheet metal and mechanical parts, the subassembly of electronic and mechanical parts and components, and operational and quality control testing of components, assemblies and completed systems. The Company's products consist of both standard and Company-specified mechanical and electronic parts, sub-assemblies and major components, including microcomputers. Most parts are purchased, including many complex electronic and mechanical sub-assemblies. The Company also purchases major standard components, including low speed scanners, jukeboxes, PCs, printers and servers. An important aspect of the Company's manufacturing activities is its quality control program which uses computer-controlled testing equipment.

The Company has not experienced significant shortages of any components or subassemblies; however, alternate sources for such components and subassemblies have been developed.

#### COMPETITION

The Company competes with service providers utilizing multiple vendor architectures. The Company differentiates its solutions by offering a total system, including post installation support of hardware and software services. The Company focuses on industry specific "application" areas with solutions utilizing image and data entry/data capture systems provided by the Company.

#### PATENTS

The Company currently has nine United States patents in force which expire between 2003 and 2018. The patents are on mechanical systems, electronic circuits, electronic systems and software algorithms which are used throughout

the product lines. The Company expects to continue to apply for patents on its new technological developments when it believes they are significant. In November 1997, the Company licensed a patent to IBML for their use in an image transport designed for processing airline tickets.

#### EMPLOYEES

As of December 31, 1998 the Company employed 339 persons, including 28 with administrative and support responsibilities, 34 in marketing and sales, 173 in software and service activities, 49 in engineering and 55 in manufacturing capacities. The Company considers its employee relations to be good. The Company has not experienced any work stoppages.

#### PRODUCT DEVELOPMENT

In June 1992, the Company introduced the Series 9000 scanner. The Series 9000 integrates the latest in character recognition, image capture, and paper handling technology into a high speed scanner. During 1993, the Company introduced several options for this scanner. These options permit character recognition and image processing on the "reverse side" of documents; a special small document stacker module; and the ability to recognize several industry standard bar-codes.

The Series 9000 interfaces with other company products to provide multi-media data entry and image storage and retrieval. During 1994, the Company developed and delivered a network-based scanning, recognition and data entry product - the Series 7000 - which addresses requirements for a distributed solution.

In April 1995, the Company introduced the Model 7800 scanner. The Model 7800 is the world's fastest full-page image scanner, capable of capturing up to 200 full size pages per minute. It is based on Scan-Optics' high-end, industry proven Series 9000. In April 1996, the Model 7800 was recognized at an industry trade show with the "Showstopper Award" for outstanding product.

In August 1995, the Company signed a license agreement to sell and support the ImageEMC product. As part of the agreement, the Company took over support requirements of the currently installed customer base and hired development and support personnel from TCSI Corporation. The product was enhanced to accept images and data from Scan-Optics' scanners. Any enhancements made to the product are owned by the Company. This product provides a total solution for processing healthcare claim forms (HCFA 1500s). The product is a client/server architecture and operates on industry standard hardware and software platforms.

In July 1996, the Company introduced a high-speed neural network based handprint recognition system for use in the Series 9000 scanner. The In-Line Neural Classifier operates at speeds of up to 7500 characters per second while achieving a 50% reject rate reduction and 10% substitution rate reduction over the current handprint recognition engine. The classifier is based on a special neural network algorithm which is resistant to overtraining making it an ideal candidate for character recognition systems.

The Company is focusing its research and development on total solutions. In 1997, ImageEMC++ was released. Developed as a result of the Company's experience with many of the nation's leading health insurance and other claim payment companies, ImageEMC++ is a comprehensive business solution designed to efficiently process all the paper forms and other documents these organizations receive. It minimizes the time and labor involved with processing single and multi-part paper health claims, enrollments and other forms as well as correspondence, re-pricing sheets and other general documents.

The Company has been involved in leveraging the power of neural recognition engines to assure success with each operation. Context Edit analyzes incorrectly-recognized data, conducts a database library search, compares fields, character by character, to locate a correct match, and then automatically updates the data batch with the correct information. With an extensive electronic postal/name library, virtually every combination is considered but only the correct value is accepted.

The Company released VistaCapture in 1998. VistaCapture represents a new paradigm for creating data entry applications. The VistaCapture product suite, an open-system solution based on Visual basic that utilizes Microsoft ActiveX (OCX) technology, includes the VistaImage, VistaEdit, VistaStat, VistaICR and VistaForm modules. VistaCapture is designed for high-speed key-entry, key-from-image, and state-of-the-art character recognition (OCR/ICR) applications.

The Company continues to support its traditional data entry products of Key Entry III and ImageKey. Typical applications range from "heads down" data entry to highly sophisticated multi-user "front-ends" for large corporate databases.

In 1998, releases of solutions in the government, order entry and transportation markets were made:

Scan-Optics' TAXexpress<TM>, an automated image-based tax processing and data capture solution, consists of processing modules to handle income tax, sales tax and other tax returns. It applies the technologies of character recognition, data and image capture, data correction, verification and transfer to a host system, including image workflow and archive capabilities. As a result, TAXexpress<TM> can achieve the principal goal of most tax and revenue departments in implementing an image-based tax processing system.

Scan-Optics' ORDERexpress<TM> is an automated image-based data capture solution for "club" style order solicitation and order processing. ORDERexpress<TM> provides mark sense, machineprint and handprint recognition, which are integral parts of most reply cards. It also offers processing modules to handle order reply cards, return non-orders, and process payments. This solution eliminates the need to manually sort and separately process orders from non-orders, and name and address changes. Also available are hardware and application software to process mail-out announcements and return order documents and payments.

Scan-Optics' PROOFexpress<TM> is an automated image-based solution for delivery, data capture and storage and retrieval. It provides processing modules to handle waybills, delivery tickets and other billing documents. It applies the technologies of character recognition, data and image capture, data correction and verification and transfer to a host system. As a result, PROOFexpress<TM> can achieve the principal goal of most billing departments in implementing an image-based storage and retrieval system.

The Company considers product development to be a significant element in maintaining market share. During the years ended December 31, 1998, 1997, and 1996, the Company's research and development expenses were \$5,560,000, \$4,552,000, and \$4,142,000, respectively. Some portion of these amounts were funded under the development agreements described below.

The Company intends to continue its program of development of additional options and capabilities for its existing products as well as the development of new products which exploit the Company's core competencies.

#### FUNDED DEVELOPMENT AGREEMENTS

During 1990, the Company entered into two separate agreements for the development of new product technology, which provided a total funding of \$3,645,000 over an eighteen month period. Revenues related to these development projects were recorded through 1992, which offset related costs incurred to successfully develop the products. The agreements provide the respective third party with exclusive rights to market the developed product in its geographic market area while the Company will manufacture the product and retain ownership and all other distribution rights. Royalties and other considerations, up to a maximum of 130% of the amount advanced to the Company, were required to be paid based on sales of the new product technology through the termination dates of the agreements, June 30, 1995 and December 31, 1996. As of December 31, 1996, the Company had repaid \$4,738,500, or 100% of the maximum potential obligation.

During 1995, the Company entered into \$700,000 of product development agreements with a specific customer, which required various modifications and enhancements to the Company's Series 9000 product. The Company recorded revenue related to these development agreements of \$336,000 in 1995, and \$364,000 in 1996. These revenues offset related costs incurred to develop the modifications and enhancements. The ownership of the technologies created as a result of this development agreement remains with the Company. No royalties or other considerations are required as a part of this agreement.

In August 1995, the Company signed a license agreement to sell and support the Image EMC product. The agreement requires payment of royalties based upon the net sales price of the software. Royalties are expensed as a part of cost of sales at a rate of 10%, decreasing to 5% after a minimum royalty payment is met.

During 1997, the Company entered into a \$636,000 product development agreement with a specific customer, which required various modifications and enhancements to the Company's Series 9000 product. The Company recorded all revenue related to this development agreement in 1997. These revenues offset related costs incurred to develop the modifications and enhancements. The ownership of the technologies created as a result of this development agreement remains with the Company. No royalties or other considerations are required as a part of this agreement.

During 1998, the Company completed a \$200,000 custom development project with a specific customer. The project involved adding fluorescent bar code printing and reading to the Series 9000 product and adding additional stacker modules to accommodate the document sorting requirements. The Company recorded all revenue related to this development agreement in 1998. These revenues



offset related costs incurred to develop the modifications and enhancements. The ownership of the technologies created as a result of this development agreement remains with the Company. No royalties or other considerations are required as a part of this agreement.

#### EFFECTS OF ENVIRONMENTAL LAWS

The effect of federal and state environmental regulations on the Company's operations is insignificant.

#### BUSINESS SEGMENTS

The Company views its business in three distinct revenue categories: Product and solution sales, Maintenance revenue and Contract manufacturing. Revenues are used by management as a guide to determine the effectiveness of the individual segment. The Company manages its operating expenses through a traditional functional perspective and accordingly does not report operating expenses on a segment basis.

<TABLE>  
<CAPTION>

(thousands)	Year Ended December 31		
	1998	1997	1996
<S>	<C>	<C>	<C>
Revenues			
Product and solution sales	\$ 40,174	\$ 45,002	\$ 34,293
Maintenance revenue	13,222	11,606	11,741
Contract manufacturing	575		
Total revenues	53,971	56,608	46,034
Cost of product sales	19,335	25,066	19,622
Service expenses	14,693	10,400	9,544
Gross profit margin	19,943	21,142	16,868
Operating expenses, net	16,709	15,451	13,603
Income before income taxes	\$ 3,234	\$ 5,691	\$ 3,265
Total assets	\$ 52,992	\$ 38,707	\$ 31,121
Total expenditures for additions to long-lived assets	\$ 560	\$ 1,139	\$ 2,581

</TABLE>

Note: The Japanese Health Organization accounted for \$5.7 million, \$20.2 million and \$14.1 million in product and solution sales in 1998, 1997 and 1996, respectively.

Sales of equipment to customers in the international market represent an important source of the Company's revenues. The Company has international distributors located in 46 countries and covering six continents. Changes in the economic climates of foreign markets could have an unfavorable impact on future international sales.

Export sales by geographic area (based on the location of the customer) were as follows:

<TABLE>  
<CAPTION>

(thousands)	1998		1997		1996	
<S>	<C>		<C>		<C>	
Latin America	\$ 88	1%	\$ 2,207	8%	\$ 113	1%
Europe	328	3%	37		433	2%
Pacific Rim	9,649	96%	24,894	92%	18,281	97%
	\$10,065		\$ 27,138		\$ 18,827	

</TABLE>

Export sales represented 31%, 66% and 62% of net sales for the three years ended December 31, 1998, 1997 and 1996, respectively.

#### ITEM 2 - PROPERTIES

The Company's world headquarters and manufacturing facility is located in a newly renovated 84,000 square foot, one-story building in Manchester, Connecticut, leased for a term expiring in December 2006. Southern Computer Systems, Inc., leases 24,000 square feet of office space, expiring in December 1999, in Birmingham, Alabama, for professional services, software engineering and support, administration and equipment demonstration. The Company also leases a 3,000 square foot sales, support, and research and development facility in Berkeley, California that expires in December 2000.

The Company leases office space throughout the United States for sales, service and administrative functions. Office space for administration and equipment demonstration is also leased by Scan-Optics, Ltd., in the United Kingdom and Scan-Optics (Canada), Ltd., both wholly owned subsidiaries.

#### ITEM 3 - LEGAL PROCEEDINGS

There are no lawsuits currently pending against the Company.

#### ITEM 4 - SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

The Company did not submit any matters during the fourth quarter of 1998 to a vote of the stockholders.

#### EXECUTIVE AND OTHER OFFICERS OF THE REGISTRANT

Officers of the Company are set forth in the schedule below.

<TABLE>  
<CAPTION>

Name	Age	Principal Occupation:	Officer Since
<S>	<C>	<C>	<C>
James C. Mavel	53	Chairman, Chief Executive Officer, President and Director	1996
William H. Cuddy	63	Corporate Secretary	1984
Marianna C. Emanuelson	37	Vice President - Human Resources	1997
Richard C. Goyette	47	Vice President - Sales, Marketing and Professional Services	1996
Joel K. Howser	51	Vice President - Product Development	1998
Clarence W. Rife	59	Vice President - Customer Relations	1975
Michael J. Villano	39	Chief Financial Officer, Vice President and Treasurer	1992

</TABLE>

Mr. Mavel joined the Company in January 1996 as President and Chief Operating Officer. In June 1996, Mr. Mavel became a Director of the Company. On December 31, 1996, Mr. Mavel was promoted to Chief Executive Officer. In May 1997, Mr. Mavel was elected Chairman of the Board of Directors. Prior to joining the Company, from 1992 through 1995, Mr. Mavel was Vice President and General Manager of the Imaging Systems Division of Unisys. From 1991 to 1992, he was Group Vice President of the Financial Information Systems Division of National Data Corporation.

Mr. Cuddy has been a partner in the law firm of Day, Berry and Howard since 1968. He was elected to the position of Corporate Secretary in September 1984.

Ms. Emanuelson joined the Company in August 1994, and was elected to the position of Vice President in 1997. She is currently Vice President - Human

Resources.

Mr. Goyette joined the Company in March 1996 as Vice President - Sales and Marketing. Prior to joining the Company, from 1993 through 1995, Mr. Goyette was Vice President of the Imaging Systems Division of Unisys. From 1992 to 1993, he was Vice President of the Software Products Group of Unisys. From 1990 to 1992 he was Vice President of Corporate Information Productivity Systems of Unisys.

Mr. Howser joined the Company in February 1997 as Vice President - Marketing. In December of 1997, Mr. Howser assumed the responsibility of Vice President - Product Development. Prior to joining the Company, from 1989 through 1996, he was director of development for Unisys in its image program. Mr. Howser had twenty years in transaction processing and OCR/image development prior to joining Unisys.

Mr. Rife has been employed by the Company since 1969 and was elected to the position of Vice President in 1975. He is currently Vice President - Customer Relations.

Mr. Villano joined the Company in 1986 and in 1988 was named Assistant Controller. In 1989 he was promoted to the position of Controller, in February 1992 was named Vice President and Controller and in March 1994 was named Chief Financial Officer and Vice President. Mr. Villano was appointed Treasurer in May 1997.

The executive officers are elected for a one year term effective at the conclusion of the Annual Meeting of Stockholders each year. There are no family relationships between any of the listed officers.

PART II

ITEM 5 - MARKET PRICE OF AND DIVIDENDS ON THE REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

COMMON STOCK MARKET PRICES AND DIVIDENDS

The following is a two year history of Common Stock prices for each quarter. The table sets forth the high and low closing quotations per share for the periods indicated of the Common Stock in the over-the-counter market based upon information provided by the National Association of Securities Dealers, Inc. The closing quotations represent prices between dealers and do not include retail markups, markdowns or commissions and may not represent actual transactions. There were 1,163 stockholders of record at December 31, 1998.

<TABLE>  
<CAPTION>

Quarter Ended	March 31		June 30		September 30		December 31	
	High	Low	High	Low	High	Low	High	Low
<S>	<C>	<C>	<C>	<C>	<C>	<C>	<C>	<C>
1998	9 13/16	5 15/16	6 1/2	4 13/16	6 13/16	3 15/16	4 7/8	3 3/16
1997	8	3 1/4	7 3/8	4 11/16	12 3/8	5 1/8	13 1/4	7 1/16

</TABLE>

The Company has not paid dividends on its Common Stock and the Board of Directors of the Company has no intention of declaring dividends in the foreseeable future. The declaration and payment of dividends in the future will be determined by the Board of Directors in light of conditions then existing, including the Company's earnings, financial condition, capital requirements and other factors.

ITEM 6 - SELECTED FINANCIAL DATA

SCAN-OPTICS, INC. AND SUBSIDIARIES  
FIVE YEAR SUMMARY OF OPERATIONS

SELECTED FINANCIAL DATA

<TABLE>  
<CAPTION>

(thousands, except share data)	1998	1997	1996	1995	1994
<S>	<C>	<C>	<C>	<C>	<C>
Total Revenues	\$ 53,971	\$ 56,608	\$ 46,034	\$ 42,084	\$ 43,889
Income (loss) before income taxes	3,234	5,691	3,265	(1,327)	1,244
Income taxes (benefit)	1,105	(99)	(9)	(72)	(40)
Net Income (Loss)	2,129	5,790	3,274	(1,255)	1,284
Basic earnings (loss) per share	\$ .31	\$ .87	\$ .50	\$ (.19)	\$ .20
Basic weighted-average shares	6,921,331	6,632,248	6,530,244	6,512,475	6,457,701
Diluted earnings (loss) per share	\$ .30	\$ .82	\$ .49	\$ (.19)	\$ .19
Diluted weighted-average shares	7,102,658	7,070,013	6,715,942	6,512,475	6,872,417

SELECTED BALANCE SHEET DATA

Total assets	\$ 52,992	\$ 38,707	\$ 31,121	\$ 29,514	\$ 29,619
Working capital	\$ 15,107	\$ 24,643	\$ 17,318	\$ 14,239	\$ 14,015
Total stockholders' equity	\$ 30,246	\$ 27,733	\$ 21,207	\$ 17,751	\$ 18,731

</TABLE>

The Company has not paid any dividends for the five year period ended December 31, 1998.

The above financial data should be read in conjunction with the related consolidated financial statements and notes thereto.

The earnings per share amounts prior to 1997 have been restated as required to comply with Statement of Financial Accounting Standards No. 128, EARNINGS PER SHARE. For further discussion of earnings per share, see Notes to the Consolidated Financial Statements.

ITEM 7 - MANAGEMENT'S DISCUSSION AND ANALYSIS OF CONSOLIDATED FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Outlook

The forward-looking statements contained in this Outlook and elsewhere in this document are based on current expectations. As such, actual results may differ materially. The ability for Scan-Optics, Inc. (the "Company") to achieve the following expectations could be impacted by increased competition or a slowdown in growth within the scanning and imaging market, alternate forms of processing, inability to consummate accretive acquisitions and changes in the economic climates of foreign markets as well as that of the United States. See also Year 2000 Compliance below. The foregoing factors should not be construed as exhaustive.

In 1997, the Company derived 39% of its total revenue from one customer, Toyo Officemation, Inc., one of the Company's distributors in Japan. Health claims processing systems represented 90% of this revenue. The Company received orders from this customer for ten image scanning and OCR transports, valued at approximately \$6 million, that were delivered in the first quarter of 1998. The Company has been notified by its Japanese distributor that the end user of the health claim processing systems has chosen to reallocate 12 systems from existing locations rather than purchase new systems to meet the remainder of their current requirement. The Company believes that success in achieving the initiatives described below will help offset the continued foreseen reduction in sales from this customer. The inability of the Company to meet these initiatives may have a materially adverse effect on earnings.

Four major initiatives currently underway are expected to compensate for the

decline in revenues. The first initiative consists of the Company's development of target market data capture applications that, combined with its other high speed transports and archival systems, will provide cost effective solutions. The current focus is on the government, healthcare, transportation, financial and order entry markets. The Company expects to continue to emphasize its "Solutions at Work" focus on these targeted markets for the foreseeable future. As other market opportunities emerge, the Company will evaluate the potential of using its products and services to provide "Solutions at Work" in these new markets. The Company was successful with this initiative and achieved growth of 40% primarily in the government and healthcare markets in 1998.

The second initiative is further expansion into the international marketplace. The Company has successfully supplied product to the Japanese market and has experienced strong sales activity through relationships with highly qualified and productive distributors. During the last three years, sales to Japanese distributors have averaged 30% of total revenues. The Company will continue to focus on developing comparably strong relationships in Europe, Latin America and other Pacific Rim countries. During 1998, the Company had minimal achievements with this initiative. The Asian marketplace, due to its economic challenge, most notably Japan, was a significant disappointment to the Company during 1998. The economic environment in Latin America has also been an impediment to growth in these markets. The Company has been strengthening its relationships in Europe, demonstrated by three sales to a distributor in England and the active pursuit of sales of the Series 7400 with four Value Added Resellers in Europe. Also, the Vice President of Marketing has taken over the responsibility of the sales channel which includes the international marketplace.

The third initiative relates to leveraging the Company's core competencies in an effort to add revenues and profits. The Company believes that the hardware service and manufacturing organizations have potential to sell their individual expertise, experience and cost effectiveness to other entities. The Company was successful in attaining in 1998 a \$2 million contract manufacturing order from Rapor, Inc., a security door provider, for delivery in 1999. During 1998, the Company added agreements with five new hardware manufacturers for third party maintenance. These agreements comprise approximately fifty end user customers.

The last initiative is growth through an accretive acquisition or acquisitions. In the fourth quarter of 1997, the Company engaged the services of an investment banking firm to assist in a corporate growth strategy that is focused on the consolidation occurring in the imaging and data capture market. The imaging industry is made up of many smaller companies and management believes achieving greater critical mass will increase the likelihood of growth in the adoption of this technology. With that in mind, the Company is pursuing acquisitions that will utilize its core competencies and will provide immediately accretive earnings. During 1998, the Company completed two acquisitions, Southern Computer Systems (SCS), a software and solutions provider, and the hardware maintenance division of Access Corporation. It is the Company's policy not to discuss or comment on negotiations regarding such transactions until a definitive agreement is signed or after circumstances indicate a high degree of probability that a transaction will be consummated, unless the law otherwise requires.

#### RESULTS OF OPERATIONS - 1998 VS. 1997

Total revenues decreased \$2.6 million or 5% from 1997 to 1998.

Product sales decreased \$8.9 million or 22% from the prior year. The Company's core business sales increased \$5.5 million or 26% from 1997 to 1998. The core business includes all domestic and international sales except those for health claims processing to the Japanese government. North American sales increased \$8.1 million or 57%. SCS provided \$4.8 million of this increase. International sales decreased \$2.6 million or 37% from 1997. International sales in the Pacific Rim that relate to the core business declined 17% or \$.8 million and sales to Europe and Latin America decreased 81% or \$1.8 million mainly due to the decline in economic conditions in the Latin American countries. Sales to the Japanese government decreased \$14.4 million or 72% as discussed in the Outlook section above.

Service revenues increased \$6.5 million from 1997 to 1998. Hardware maintenance and support revenue increased \$1.8 million or 16% due to the June 30, 1998 acquisition of the hardware maintenance division of Access Corporation. Professional service revenue increased \$4.7 million or 193% due to an increase in the focus on "Solutions at Work", the marketing campaign to provide greater customer value in the target markets, as well as the acquisition of SCS, which came with a professional services organization of a similar size to that of Scan-Optics.

Engineering revenues decreased \$.6 million from 1997 to 1998 due to a decline in customer funded development contracts from 1997 levels. (See Note H of the Notes to Consolidated Financial Statements.)

Cost of product sales decreased \$5.7 million or 23% from 1997 to 1998. Cost of product sales as a percentage of product sales decreased 1% from 61% in 1997 to 60% in 1998. The decrease is mainly due to a change in sales mix from 1997 to 1998 relating to the significant reduction in sales to the Japanese distributor.

Service expenses increased by \$4.3 million in 1998. Customer service expenses increased \$1.5 million due to the acquisition of the hardware maintenance division of Access Corporation on June 30, 1998. Professional service expenses increased \$2.8 million from 1997 to 1998 due to the acquisition of SCS on June 16, 1998.

Sales and marketing expenses decreased by \$.3 million in 1998 principally due to a reduction in salaries and related expenses of \$.5 million related to a reorganization of the sales department, a specific accounts receivable provision of \$.4 million recorded in 1997, offset by an increase in commission expense of \$.3 million related to the increase in North American sales, and an increase related to SCS of \$.3 million.

Research and development expenses increased \$1 million from 1997 due in part to increases in salary and benefit expenses of \$.3 million and travel of \$.2 million offset by a reduction in outside services of \$.2 million. In addition, SCS added \$.7 million to engineering expense in the second half of 1998. During 1998 the Company invested in its core technologies of imaging, recognition, paper handling and data entry, as well as its continued investment in application software to meet the requirements of its target markets.

General and administrative expenses increased \$.2 million in 1998 compared to the prior year. The increase is mainly due to SCS.

Interest expense increased \$.4 million due to the funding requirements related to the acquisitions completed during the second quarter of 1998.

Income taxes increased \$1.2 million from 1997 due to the full utilization of U.S. net operating loss carryforwards in 1997. The Company's effective tax rate for 1998 was 34%.

#### RESULTS OF OPERATIONS - 1997 VS. 1996

Total revenues increased \$10.6 million or 23% from 1996 to 1997.

Product sales increased \$11.1 million or 37% from the prior year. The Company's core business sales increased \$4.4 million or 26% from 1996 to 1997. The core business includes all domestic and international sales except those for health claims processing to the Japanese government. North American sales increased \$2.8 million or 24% and international sales increased \$8.3 million or 44% from 1996. International sales in the Pacific Rim showed another year of growth with a sales volume increase of 36% or \$6.6 million mainly due to the increase in orders with the Japanese government. Sales to Europe decreased \$.4 million as new channels were being established and sales to Latin America increased \$2.1 million from 1996 to 1997.

Service revenues decreased \$.4 million from 1996 to 1997. Hardware maintenance and support revenue decreased \$.3 million due to the replacement of older product lines with current products which require less maintenance than earlier product lines. Professional service revenue decreased \$.1 million due to an increase in distributor sales which do not carry a professional service component and also due to the process of transitioning to become a solution provider in the marketplace.

Engineering revenues decreased \$.3 million from 1996 to 1997 due to a decline in the funded development contracts from 1996 levels. (See Note H of the Consolidated Financial Statements.)

Cost of product sales increased \$5.4 million from 1996 to 1997. The cost of product sales as a percentage of product sales decreased 4% from 65% in 1996 to 61% in 1997. The decrease is mainly due to continued manufacturing efficiencies achieved from increased production volume, favorable material pricing due to purchasing volumes and quality improvement processes.

Service expenses increased by \$.9 million in 1997. Customer service expenses increased \$.4 million principally due to an increase in outside services expense and an increase in amortization of customer service parts inventory. Professional service expenses increased \$.5 million in 1997 from 1996 mainly due to increases in staffing levels and related fringe benefits and travel expenses.

Sales and marketing expenses increased by \$1.8 million in 1997 principally due to an increase in sales staffing levels and associated fringe benefits and travel expenses. Commission expense also increased which is reflective of the increase in North American sales. The Company has expanded its sales and marketing organization to increase the coverage in the worldwide marketplace and focus on North American selling efforts in the target markets.

Research and development expenses increased \$.4 million from 1996 due to increases in outside services and consulting expenses. During 1997, the Company invested in its core technologies of imaging, recognition and paper handling, as well as new "Total Solution" application software.

General and administrative expenses decreased \$.2 million in 1997 compared to the prior year. The decrease is mainly due to one time 1996 expenses for legal fees, offset by an increase in expenses due to the Company's focus on investor relations and the establishment of a relationship with an investment banking firm to meet the Company's strategic planning requirements.

Interest expense decreased \$.1 million due to the continued decrease in the average outstanding loan balance for 1997, which was \$.2 million compared to \$1.1 million in 1996.

#### LIQUIDITY AND CAPITAL RESOURCES

Cash and cash equivalents decreased by \$4.2 million from 1997 to 1998 for the reasons discussed below.

At December 31, 1998, the Company had \$11.5 million in outstanding borrowings against its \$13 million line of credit. The average borrowing level for 1998 was \$4.9 million compared to \$.2 million for 1997. The increase in borrowing level is directly related to the two acquisitions completed in the second quarter of 1998 as well as the continued shift to solutions sales which typically brings extended implementation and payment cycles. The Company expects to receive a commitment letter from the bank extending the maturity date of the bank line of credit to May 27, 2000. Management believes that the line of credit provides the Company with sufficient financial resources to meet its working capital requirements. (See Note D of the Notes to Consolidated Financial Statements.) Additional acquisition activity may cause the Company to review other financing alternatives.

Operating activities used \$3.6 million of cash in 1998 compared to cash provided of \$3.4 million in 1997. Non-cash expenses in 1998 were \$3.5 million vs. \$3.2 million in 1997. These expenses relate to depreciation of fixed assets which is discussed in net plant and equipment below, amortization of customer service spare parts inventory, amortization of goodwill, provisions for losses on accounts receivable, provisions for inventory obsolescence and deferred taxes.

Net accounts receivable increased \$7.0 million or 45% from 1997, reflective of the increase in fourth quarter revenue of \$4.3 million or 28%, as well as a change in the sales mix. In 1997, \$20 million of sales were from the Japanese health organization which carried 30 day payment terms. Substantially all of this revenue was replaced by solution sales customers which have longer implementation and payment cycles. As the Company continues to grow its solutions business, contract payment structures will be modified to better match the cash flow requirements of each transaction.

Total inventories decreased \$1.1 million from 1997 levels. Manufacturing inventories decreased \$1.1 million during the year mainly due to decreases in work-in-process inventories of \$1.7 million and finished goods inventory of \$.7 million due to the Company's focused effort to reduce inventory levels. These decreases were offset by an increase in stockroom inventory of \$1.3 million due to the timing of the manufacturing production cycle. Customer service inventory was flat on a year to year comparison, due to the continued focused effort to manage inventory levels while expanding the revenue base of the business.

Net plant and equipment decreased \$.5 million in 1998. This decrease is mainly due to recorded depreciation of \$1.4 million. Offsetting the depreciation were additions of \$.9 million compared to 1997 additions of \$1.2 million. A major component of the additions includes \$.3 million due to the acquisition of SCS. Other additions include \$.2 million of capitalized leasehold improvements to the facilities in Manchester, Connecticut and \$.4 million of computer equipment for internal use. During 1997, additions of \$.6 million include the capitalization of engineering and manufacturing test equipment and upgrades of internal network computers, and \$.6 million of additions related to capitalized leasehold improvements for the renovation of facilities in Manchester, Connecticut. Capital commitments were \$.1 million at December 31, 1997 and December 31, 1998.

Accounts payable and accrued expenses increased \$3.4 million from 1997 levels. The increase is reflective of a change in the business to a solution provider. The amount of third party hardware purchased to fulfill the solution requirements of customers has increased significantly from the prior year. The Company also experienced a significant increase in payables associated with third party contractors due to the creation of the Access Services division.

Salaries and wages accrual increased \$.3 million from 1997 due to the increased headcount related to the acquisitions.

Income taxes accrual decreased \$1.5 million from 1997 due to the timing of quarterly estimated payments.

Customer deposits decreased \$2.5 million from 1997 reflective of the completion of the Japanese health organization order in the first quarter of 1998 which contained a deposit of \$1.9 million. The remaining change in the account balance from 1997 is based upon timing of orders requiring deposits and revenue recognition of those orders.

Deferred revenues, net of costs, decreased \$.7 million from 1997 levels. There were no systems undergoing acceptance testing at year end.

#### OTHER DISCLOSURES

##### Year 2000 Compliance

The Company is continuing to devote significant resources to minimize the risk of potential disruption from the Year 2000 problem. In general terms, the problem arises from the fact that many existing computer systems and other equipment containing date-sensitive embedded technology (including non-information technology equipment and systems) use only two digits to identify a year in the date field, with the assumption that the first two digits of the year are always "19". As a result of this and other common date-related programming errors (collectively, the "Year 2000 problem"), such systems may misinterpret dates after December 31, 1999, which may result in miscalculations, other malfunctions or the total failure of such systems. Because the Company is dependent upon the proper functioning of computer systems and other equipment containing date-sensitive technology, a failure of such systems and equipment to be Year 2000 compliant could have a material adverse effect on the Company. If not remedied, potential risks include business interruption or shutdown, financial loss, regulatory actions and legal liability.

The Company has established a Year 2000 task force comprised of senior management and operating personnel to coordinate its Year 2000 efforts. This task force has been evaluating the Company's exposure to the Year 2000 problem and has prepared a preliminary written plan for managing the risks and costs associated with the Year 2000 problem.

The Company's process of addressing the Year 2000 problem consists of the following steps: (a) inventorying products and services, systems, equipment and other items (including those of third parties) that potentially present a Year 2000 problem, (b) determining the materiality of such items to the Company, (c) assessing the Year 2000 compliance of the material items through internal testing and outside certification, (d) repairing, replacing or preparing for the failure of material items that are determined to be non-compliant, (e) testing repaired or replaced items, and (f) to the extent advisable, designing and implementing contingency plans.

The Company is aware and has informed each of its customers for whom it has current information that certain of its products, systems and applications developed, produced or sold, to the extent they are date sensitive at all, may not be Year 2000 compliant. Since the Company sells systems that are designed and integrated to order, the Company also reminded its customers that it is the customers responsibility to test the products, systems and applications purchased by them to determine whether such items are Year 2000 compliant. The Company has offered to its customers, where applicable, upgrades or consulting assistance at the customer's cost. The Company has also posted information regarding the Year 2000 compliance of its products, systems and applications on its web site at [www.scanoptics.com](http://www.scanoptics.com).

In order to improve access to business information through common, integrated computing systems worldwide, the Company is in the process of replacing its internal corporate information system and several other systems with systems that use programs primarily from SAP America, Inc. The implementation of the new systems, which are expected to make substantially all of the Company's internal corporate computer systems Year 2000 compliant, was completed March 1, 1999. The vendors of all new systems have certified them as being Year 2000 compliant. The Company intends to perform independent Year 2000 testing of these systems, and the testing is expected to be completed during the second quarter of 1999.

The Company has completed its inventory of other systems, equipment and items that potentially present a Year 2000 problem. The Company in the process of performing internal testing, and seeking outside certification, of material inventoried items, and expects to complete such assessment by the end of the second quarter of 1999. While the Company will not know the nature and extent of required repairs and replacements of non-compliant systems and equipment until such assessment is completed, it currently anticipates completing and testing such repairs and replacements by June 1999.

In addition to its own systems and equipment, the Company depends upon the proper function of computer systems and other date-sensitive equipment of



outside parties. These parties include banks, telecommunications service providers, electric and other utilities and significant suppliers. The Company has contacted most of such parties to determine the extent to which they are vulnerable to the Year 2000 problem, and expects to complete this process during the second quarter of 1999. The Company does not currently have sufficient information about the Year 2000 exposure or remediation plans of such parties to predict the risk they pose to the Company. If the third parties with which the Company interacts have Year 2000 problems that are not remedied, resulting problems could include the loss of telecommunications and electrical service, the receipt of inaccurate financial and billing-related information, and the disruption of capital flow potentially resulting in liquidity stress.

Due to the uncertainties presented by such third party Year 2000 problems, and the possibility that, despite its efforts, the Company may be unsuccessful in preparing its internal systems and equipment for the Year 2000, the Company is developing contingency plans for dealing with the most reasonably likely worst case scenarios. The exact nature and scope of the Company's contingency plans will be based upon an analysis of information gathered during the inventory, assessment and remediation phases of its Year 2000 program. The Company expects to complete its contingency planning during the second quarter of 1999, and to have all contingency systems in place and fully tested by the fourth quarter of 1999.

The Company estimates that, as of December 31, 1998, its costs of addressing the Year 2000 problem have been less than \$100,000. The Company's best estimate at this time of the future costs of addressing the Year 2000 problem is that the costs will not exceed an additional \$200,000. The Company has funded, and expects to continue to fund, the costs of its Year 2000 efforts through operating cash flow, and to expense such costs as incurred.

This description of matters relating to the Year 2000 problem contains a number of forward-looking statements. (See the Outlook section above.) The Company's assessment of the costs of its Year 2000 program and the timetable for completing its Year 2000 preparations are based on current estimates, which reflect numerous assumptions about future events, including the continued availability of certain resources, the timing and effectiveness of third-party remediation plans and other factors. The Company can give no assurance that these estimates will be achieved, and actual results could differ materially from those currently anticipated. In addition, there can be no assurance that the Company's Year 2000 program will be effective or that its contingency plans will be sufficient. Specific factors that might cause material differences include, but are not limited to, the availability and cost of personnel trained in this area, the ability to locate and correct relevant computer software codes and embedded technology, the results of internal and external testing and the timeliness and effectiveness of remediation efforts of third parties.

#### Impact of Recently Issued Accounting Standards

In June 1998, the Financial Accounting Standards Board issued Statement No. 133, ACCOUNTING FOR DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES, which is required to be adopted in years beginning after June 15, 1999. The Statement permits early adoption as of the beginning of any fiscal quarter after its issuance. The Company expects to adopt the new Statement effective January 1, 2000. The Statement will require the Company to recognize all derivatives on the balance sheet at fair value. Derivatives that are not hedges must be adjusted to fair value through income. If a derivative is a hedge, depending on the nature of the hedge, changes in the fair value of the derivative will either be offset against the change in fair value of the hedged asset, liability, or firm commitment through earnings, or recognized in other comprehensive income until the hedged item is recognized in earnings. The ineffective portion of a derivative's change in fair value will be immediately recognized in earnings. The Company does not anticipate that the adoption of this Statement will have a significant effect on its results of operations or financial position.

#### ITEM 7A - QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Refer to the Outlook section of Management's Discussion and Analysis of Consolidated Financial Condition and Results of Operations, and to Note A of the Notes to Consolidated Financial Statements.

#### ITEM 8 - FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Stockholders and Board of Directors  
Scan-Optics, Inc.

We have audited the accompanying consolidated balance sheets of Scan-Optics, Inc. and subsidiaries as of December 31, 1998 and 1997, and the related consolidated statements of income, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 1998. Our audits also included the financial statement schedule listed in the Index at Item 14(a). These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Scan-Optics, Inc. and subsidiaries at December 31, 1998 and 1997, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 1998, in conformity with generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

Ernst & Young LLP

Hartford, Connecticut  
February 16, 1999

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SCAN-OPTICS, INC., AND SUBSIDIARIES  
CONSOLIDATED BALANCE SHEETS

(thousands, except share data)	December 31	
	1998	1997
<S>	<C>	<C>
Assets		
Current Assets:		
Cash and cash equivalents	\$ 216	\$ 4,386
Accounts receivable less allowance of \$206 in 1998 and \$104 in 1997	22,682	15,695
Inventories	11,478	12,547
Deferred taxes	960	1,038
Deferred costs, net of revenues	502	
Prepaid expenses and other	1,055	969
	-----	-----
Total current assets	36,893	34,635
Plant and equipment:		
Equipment	13,601	13,355
Leasehold improvements	4,815	4,585
Office furniture and fixtures	1,307	1,275
	-----	-----
	19,723	19,215
Less allowances for depreciation and amortization	16,367	15,355
	-----	-----
	3,356	3,860
Goodwill, net of accumulated amortization of \$577	12,110	
Other assets	633	212
	-----	-----

Total Assets

\$ 52,992

\$38,707

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(thousands, except share data)	December 31	
	1998	1997
<S>	<C>	<C>
<b>Liabilities and Stockholders' Equity</b>		
<b>Current liabilities:</b>		
Accounts payable	\$ 5,487	\$ 2,071
Notes payable to bank	11,524	
Salaries and wages	2,263	1,984
Taxes other than income taxes	691	744
Income taxes	35	533
Customer deposits	99	2,565
Deferred revenues, net of costs		734
Other	1,687	1,361
<b>Total current liabilities</b>	<b>21,786</b>	<b>9,992</b>
Deferred taxes	263	486
Other liabilities	697	496
<b>Stockholders' Equity</b>		
Preferred stock, par value \$.02 per share, authorized 5,000,000 shares; none issued or outstanding		
Common stock, par value \$.02 per share, authorized 15,000,000 shares; issued, 7,370,482 shares in 1998 and 7,218,455 shares in 1997	147	144
Common stock Class A Convertible, par value \$.02 per share, authorized 3,000,000 shares; available for issuance 2,145,536 shares; none issued or outstanding		
Capital in excess of par value	35,501	35,025
Retained-earnings deficit	(2,240)	(4,369)
Accumulated other comprehensive loss	(516)	(421)
	32,892	30,379
Less cost of common stock in treasury, 413,500 shares	2,646	2,646
<b>Total stockholders' equity</b>	<b>30,246</b>	<b>27,733</b>
<b>Total Liabilities and Stockholders' Equity</b>	<b>\$ 52,992</b>	<b>\$ 38,707</b>

See accompanying notes.

&lt;/TABLE&gt;

SCAN-OPTICS, INC. AND SUBSIDIARIES  
 CONSOLIDATED STATEMENTS OF INCOME

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(thousands, except share data)	December 31		
	1998	1997	1996
<S>	<C>	<C>	<C>
<b>Revenues</b>			
Product sales	\$ 32,413	\$ 41,361	\$ 30,275
Service revenues	20,577	14,124	14,515
Engineering revenues	284	876	1,156
Other operating revenues	697	247	88

Total revenues	53,971	56,608	46,034
Costs and Expenses			
Cost of product sales	19,335	25,066	19,622
Service expenses	14,693	10,400	9,544
Sales and marketing expenses	7,011	7,297	5,502
Research and development expenses	5,560	4,552	4,142
General and administrative expenses	3,903	3,737	3,939
Interest expense	397	14	102
Total costs and expenses	50,899	51,066	42,851
Operating income	3,072	5,542	3,183
Other income, net	162	149	82
Income before income taxes	3,234	5,691	3,265
Income tax expense (benefit)	1,105	(99)	(9)
Net Income	\$ 2,129	\$ 5,790	\$ 3,274
Basic earnings per share	\$ .31	\$ .87	\$ .50
Basic weighted-average shares	6,921,331	6,632,248	6,530,244
Diluted earnings per share	\$ .30	\$ .82	\$ .49
Diluted weighted-average shares	7,102,658	7,070,013	6,715,942

See accompanying notes.

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SCAN-OPTICS, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF  
STOCKHOLDERS' EQUITY

(thousands, except share data)	Common Shares	Stock Amount	Capital in Excess of Par Value	Retained Earnings Deficit	Accumulated Other Comprehensive Income (loss)	Unearned ESOP Compensation	Treasury Stock	Total
<S>	<C>	<C>	<C>	<C>	<C>	<C>	<C>	<C>
Balance January 1, 1996	6,934,584	\$ 139	\$ 34,271	\$ (13,433)	\$ (315)	\$ (265)	\$ (2,646)	\$ 17,751
Issuance of common stock upon exercise of stock options	10,517		26					26
Unearned ESOP compensation amortization						133		133
Net income				3,274				3,274
Currency translation adjustments					23			23
Comprehensive income								3,297
Balance December 31, 1996	6,945,101	139	34,297	(10,159)	(292)	(132)	(2,646)	21,207
Issuance of common stock upon exercise of stock options	273,354	5	728					733
Unearned ESOP compensation amortization						132		132
Net income				5,790				5,790
Currency translation adjustments					(129)			(129)
Comprehensive income								5,661
Balance December 31, 1997	7,218,455	144	35,025	(4,369)	(421)		(2,646)	27,733

Issuance of common stock upon exercise of stock options and warrants	152,027	3	476				479
Unearned ESOP compensation amortization							
Net income				2,129			2,129
Currency translation adjustments					(95)		(95)
Comprehensive income							2,034
Balance December 31, 1998	7,370,482	\$ 147	\$ 35,501	\$ (2,240)	\$ (516)	\$	\$ (2,646) \$ 30,246

</TABLE>

See accompanying notes.

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SCAN-OPTICS, INC., AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF CASH FLOWS

(thousands, except share data)	Year Ended December 31		
	1998	1997	1996
<S>	<C>	<C>	<C>
<b>Operating Activities</b>			
Net income	\$ 2,129	\$ 5,790	\$ 3,274
Adjustments to reconcile net income to net cash (used) provided by operating activities:			
Depreciation	1,392	1,269	1,524
Amortization	1,687	1,396	1,123
Amortization of goodwill	577		
Provision for losses on accounts receivable		424	711
Provision for inventory obsolescence		700	127
Deferred taxes	(145)	(552)	
Changes in operating assets and liabilities:			
Accounts receivable	(6,176)	(6,857)	324
Inventories	(618)	277	(2,424)
Prepaid expenses and other	(51)	305	(13)
Accounts payable	2,890	(399)	(392)
Accrued salaries and wages	49	44	1,031
Taxes other than income taxes	(53)	62	344
Income taxes	(498)	326	22
Deferred revenues, net of costs	(1,849)	734	
Customer deposits	(2,466)	242	(3,577)
Other	(442)	(335)	995
Net cash (used) provided by operating activities	(3,574)	3,426	3,069
<b>Investing Activities</b>			
Business acquisitions, net of cash acquired	(12,042)		
Purchases of plant and equipment, net	(557)	(954)	(1,890)
Net cash used by investing activities	(12,599)	(954)	(1,890)
<b>Financing Activities</b>			
Proceeds from issuance of common stock	479	733	26
Proceeds from borrowings	22,045	7,741	22,631
Principal payments on borrowings	(10,521)	(7,839)	(22,838)
Net cash provided (used) by financing activities	12,003	635	(181)
(Decrease) increase in cash and cash equivalents	(4,170)	3,107	998
Cash and Cash Equivalents at Beginning of Year	4,386	1,279	281
Cash and Cash Equivalents at End of Year	\$ 216	\$ 4,386	\$ 1,279
<b>Supplemental Cash Flow Information</b>			
Interest paid	\$ 320	\$ 18	\$ 129
Income taxes paid	\$ 1,754	\$ 159	\$ 26

</TABLE>

See accompanying notes.

SCAN-OPTICS, INC. AND SUBSIDIARIES  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE A - Accounting Policies

**Organization:** The Company combines technology, experience and expertise to develop cost-effective solutions for applications that include, healthcare, government, transportation, financial and order entry. The Company's systems, software and services are marketed worldwide to commercial and government organizations either directly by the Company sales organization or through distributors. The Company's business is vulnerable to a number of factors beyond its control. These include (1) the effect of a weakening in the domestic and international economies which potentially impacts capital investments by customers, (2) the cyclical nature of funding within federal and state government agencies, (3) competition from similar products, (4) the implementation of other technologies which may provide alternative solutions, and (5) the stability of sole source suppliers.

**Basis of Presentation:** The consolidated financial statements include the accounts of Scan-Optics, Inc. and its subsidiaries, all wholly-owned. All intercompany accounts and transactions are eliminated in the consolidated financial statements. The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. While management believes that the estimates and related assumptions used in the preparation of these financial statements are appropriate, actual results could differ from those estimates.

**Cash Equivalents:** Highly liquid investments purchased with maturities of three months or less are considered cash equivalents.

**Inventories:** Inventories are valued at the lower of cost (first-in, first-out method) or market. The Company periodically reviews for obsolete and slow-moving inventory based on historical usage, future requirements and anticipated spare parts demand.

**Plant and Equipment:** Plant and equipment is stated on the basis of cost. Depreciation is computed principally using the straight-line method over periods of 3 to 10 years. Leasehold improvements are amortized over the useful life of the improvements or the life of the lease, whichever is shorter.

**Intangibles:** Goodwill relating to the acquisitions completed in 1998 represents the excess cost over fair value of tangible and identifiable intangible net assets acquired. It is amortized on a straight-line basis over 5 to 20 years.

**Impairment of Long-Lived Assets:** The Company records impairment losses on goodwill and on long-lived assets used in operations when events and circumstances indicate that the assets might be impaired and the undiscounted cash flows estimated to be generated by those assets are less than net book value. The Company also evaluates the amortization periods of assets, including goodwill and other intangible assets, to determine whether events or circumstances warrant revised estimates of useful lives.

**Revenue Recognition:** Revenues from maintenance and certain professional services are recognized as earned. Revenues relating to sales of certain equipment (principally optical character recognition equipment) are recognized upon acceptance of the hardware and related application software.

**Income Taxes:** Deferred income taxes are provided for differences between the income tax and the financial reporting bases of assets and liabilities at the statutory tax rates that will be in effect when the differences are expected to reverse.

**Stock Based Compensation:** The Company generally grants stock options to key employees and members of the board of directors with an exercise price equal to the fair value of the shares on the date of grant. The Company accounts for stock option grants in accordance with APB Opinion No. 25, ACCOUNTING FOR STOCK ISSUED TO EMPLOYEES, and, accordingly, recognizes no compensation expense for the stock option grants. Therefore, the Company has elected the disclosure provisions only of FASB Statement No. 123.

**Earnings (Loss) Per Share:** Basic and diluted earnings per share is calculated in accordance with FASB Statement No. 128, EARNINGS PER SHARE. All earnings per share amounts for all periods have been presented, and where appropriate,

restated to conform to the Statement 128 requirements.

Foreign Currency Translation: The financial statements of foreign subsidiaries have been translated into U.S. dollars in accordance with FASB Statement No. 52, FOREIGN CURRENCY TRANSLATION. All balance sheet accounts have been translated using the exchange rates in effect at the balance sheet date. Statement of Income amounts have been translated using the average exchange rate for the year. The gains and losses resulting from the changes in exchange rates from year to year have been reported in other comprehensive loss, a component of Stockholders' Equity.

Reclassifications: Certain 1997 and 1996 amounts have been reclassified to conform to the current year presentation.

Impact of Recently Issued Accounting Standards: In June 1998, the FASB issued Statement No. 133, ACCOUNTING FOR DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES. The Company expects to adopt the new Statement effective January 1, 2000. The Statement will require the Company to recognize all derivatives on the balance sheet at fair value. The Company does not anticipate that the adoption of this Statement will have a significant effect on its results of operations or financial position.

#### NOTE B - ACQUISITION ACTIVITIES

The Company completed two acquisitions during June 1998. The first was Southern Computer Systems (SCS), a privately held company, for \$7 million in cash. The Company acquired cash and accounts receivable of \$.4 million, fixed assets of \$.3 million and other assets of \$.1 million. The Company also assumed certain liabilities as follows: accounts payable of \$.5 million, salary and benefits accruals of \$.2 million, deferred revenue of \$.1 million, note payable to Scan-Optics, Inc. of \$.5 million, acquisition related expenses for investment banker and legal services of \$.4 million and bank debt of \$1.4 million. Immediately following the closing, the bank debt was repaid. The operations of SCS are included in the consolidated statement of income from the date of acquisition. The transaction was accounted for as a purchase and the excess cost over fair value of the net assets acquired of \$9.2 million is being amortized over a twenty year period. The proforma unaudited results of operations for the years ended December 31, 1998 and December 31, 1997, assuming consummation of the purchase as of January 1, 1997, are as follows:

<TABLE>  
<CAPTION>

(thousands, except per share amounts)	December 31 1998	December 31 1997
<S>	<C>	<C>
Total revenue	\$ 55,732	\$ 63,076
Net income (loss)	(1,459)	4,680
Basic earnings (loss) per share	(.21)	.71
Diluted earnings (loss) per share	\$ (.21)	\$ .66

</TABLE>

The Company entered into consulting and non-competition agreements with the two principals of SCS. The agreements call for eight quarterly payments of \$50,000 per principal, beginning in the fourth quarter of 1998. The agreements provide for consulting services to be performed by the principals as well as preventing the principals from becoming directly involved with a competing business in the Image Data Capture marketplace. The amount of the quarterly payments is being amortized over a two-year period.

The second acquisition was the maintenance division of Access Corporation for \$3.3 million in cash. The Company acquired accounts receivable of \$.5 million. The Company also assumed a liability for deferred revenue of \$.5 million and acquisition related expenses for investment banker and legal services of \$.2 million. The operations of the maintenance division of Access Corporation are included in the consolidated statement of income from the date of acquisition. The transaction was accounted for as a purchase and the excess cost over fair value of the net assets acquired of \$3.5 million is being amortized over a five year period.

The Company determines the amount of goodwill and the amortization period based upon a review of the acquired business and its earnings potential.

<TABLE>  
<CAPTION>

#### NOTE C - INVENTORIES

The components of inventories were as follows:

(thousands)	December 31	
	1998	1997
<S>	<C>	<C>
Finished goods	\$ 1,885	\$ 2,586
Work-in-process	2,129	3,823
Service parts	3,808	3,807
Materials and component parts	3,656	2,331
	-----	-----
	\$ 11,478	\$ 12,547
	=====	=====

</TABLE>

NOTE D - CREDIT ARRANGEMENTS

On May 28, 1998, the Company amended its credit agreement (the "Agreement") with a bank to extend the maturity date to May 27, 1999 and to increase the line from \$4 million to \$10 million. Subsequently, the line of credit was increased from \$10 million to \$13 million through May 27, 1999. The Agreement contains covenants which, among other things, require the maintenance of specified working capital, debt to equity ratios, net income levels and tangible net worth levels. The line bears interest at prime (7 3/4 % at December 31, 1998) and the unused portion of the line is subject to a commitment fee of 3/8% per annum. The weighted average interest rate on borrowings during 1998 and 1997 was 8.1% and 8.8% respectively. The available balance on the total line of credit was \$1.5 million at December 31, 1998.

The Company expects to receive a commitment letter from the bank extending the maturity date of the line of credit to May 27, 2000 based on similar limitations and covenants as in the current Agreement.

The carrying value of the notes payable to bank approximates its fair value.

NOTE E - CAPITAL STOCK

The Board of Directors is authorized to issue shares of the Company's preferred stock in series, to establish from time to time the number of shares to be included in each series and to fix the designation, powers, preferences and other terms and conditions with respect to such stock. No shares have been issued to date.

At December 31, 1998, the Company had reserved 915,055 shares of common stock for the issuance or exercise of stock options. There are no shares reserved for the exercise of warrants.

Class A Convertible stock has the same rights as common stock, except that its holders may not vote for the election of directors, and it is convertible into common stock on a share for share basis. On September 2, 1994, all outstanding shares of Class A Convertible stock were converted to common stock. No shares were outstanding at December 31, 1998 and 1997.

NOTE F - COMMON STOCK WARRANTS

At December 31, 1998, and 1997, there were no warrants outstanding.

<TABLE>  
<CAPTION>

	PRICE PER SHARE	SHARES
<S>	<C>	<C>
Warrants outstanding December 31, 1995	\$ 3.63 - \$ 5.38	43,000
	=====	=====
Expired in 1996	\$ 5.38	25,000
	-----	-----
Warrants outstanding December 31, 1996	\$ 3.63	18,000
	=====	=====
Exercised in 1997	\$ 3.63	18,000
	-----	-----
Warrants outstanding December 31, 1998 and 1997	\$ 0	0
	=====	=====

</TABLE>



NOTE G -- STOCK OPTION PLANS

The Company has elected to follow Accounting Principles Board Opinion No. 25, ACCOUNTING FOR STOCK ISSUED TO EMPLOYEES (APB No. 25) and related interpretations in accounting for its stock options. Under APB No. 25, because the exercise price of the Company's stock options equals market price of the underlying stock on the date of grant, no compensation expense is recognized.

The Company has five stock option plans for key employees and board members. Options granted under the plans are for a period of ten years and at prices not less than 85% of the fair market value of the shares at date of grant. Options for employees are not exercisable for one year following the date of grant and then are exercisable in such installments during the period prior to expiration as the Stock Option Committee shall determine. Options for Directors are not exercisable until six months after the grant thereof. Options may be exercised from time to time, in part or as a whole, on a cumulative basis as determined by the Stock Option Committee under all stock option plans.

The following schedule summarizes the changes in stock options for each of the three years in the period ended December 31, 1998:

<TABLE>  
<CAPTION>

	NUMBER OF SHARES	OPTION PRICE PER SHARE
<S>	<C>	<C>
Outstanding January 1, 1996 (587,260 exercisable)	786,715	\$1.50 to \$9.63
Granted	124,000	3.25 to 4.75
Exercised	(10,517)	1.50 to 3.25
Canceled	(41,484)	2.13 to 9.63
Outstanding December 31, 1996 (567,991 exercisable)	858,714	1.50 to 9.63
1997 ACTIVITY		
Granted	217,500	4.68 to 9.19
Exercised	(255,354)	1.50 to 6.00
Canceled	(3,467)	3.38 to 9.63
Outstanding December 31, 1997 (679,688 exercisable)	817,393	1.50 to 9.19
1998 ACTIVITY		
Granted	35,000	5.69 to 9.19
Exercised	(152,027)	2.13 to 3.75
Canceled	(11,933)	2.13 to 6.38
Outstanding December 31, 1998 (531,420 exercisable)	688,433	\$1.50 to \$9.19

At December 31, 1998 there were 226,622 options available for grant.

The weighted-average fair value of options granted was \$6.21, \$7.13 and \$3.72 during 1998, 1997, and 1996 respectively. The weighted-average remaining contractual life of the options outstanding at December 31, 1998 was 6 years.

Pro forma information regarding net income and earnings per share is required by FASB Statement No. 123, and has been determined as if the Company had accounted for its stock options under the fair value method of that Statement. The fair value of these options was estimated at the date of grant using a Black-Scholes option pricing model.

Option valuation models require the input of highly subjective assumptions including the expected stock price volatility. The assumptions used in the valuation model were: risk free interest rate - 7%, expected life - 10 years and expected volatility of .793.

Because the Company's stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of its stock options.

For the purpose of pro forma disclosures, the estimated fair value of the stock options is expensed ratably over the vesting period which is 36 months for key employees and 6 months for the Board of Directors. The Company's pro forma information follows:

</TABLE>  
 <TABLE>  
 <CAPTION>

(thousands, except per share amounts)	December 31		
	1998	1997	1996
<S>	<C>	<C>	<C>
Net income, as reported	\$ 2,129	\$ 5,790	\$ 3,274
Stock option expense	563	351	211
Pro forma net income	\$ 1,566	\$ 5,439	\$ 3,063
Basic earnings per share, as reported	\$ .31	\$ .87	\$ .50
Stock option expense	.08	.05	.03
Pro forma basic earnings per share	\$ .23	\$ .82	\$ .47
Diluted earnings per share, as reported	\$ .30	\$ .82	\$ .49
Stock option expense	.08	.05	.03
Pro forma diluted earnings per share	\$ .22	\$ .77	\$ .46

</TABLE>

NOTE H - RESEARCH AND DEVELOPMENT AGREEMENTS

During 1990, the Company entered into two separate agreements for the development of new product technology, which provided a total funding of \$3,645,000 over an eighteen month period. Revenues related to these development projects were recorded through 1992, which offset related costs incurred to successfully develop the products. The agreements provide the respective third party with exclusive rights to market the developed product in its geographic market area while the Company will manufacture the product and retain ownership and all other distribution rights. Royalties and sales discounts, up to a maximum of 130% of the amount advanced to the Company, were required based on sales of the new product technology through the termination dates of the agreements, June 30, 1995 and December 31, 1996. As of December 31, 1996, the Company had repaid \$4,738,000 or 100% of the maximum potential obligation.

During 1995, the Company entered into \$700,000 of product development agreements with a specific customer, which required various modifications and enhancements to the Company's Series 9000 product. The Company recorded revenue related to this development agreement of \$336,000 in 1995 and \$364,000 in 1996. These revenues offset related costs incurred to develop the modifications and enhancements. The ownership of the technologies created as a result of this development agreement remains with the Company. No royalties or other considerations are required as a part of this agreement.

In August 1995, the Company signed a license agreement to sell and support the Image EMC product. The agreement requires payment of royalties based upon the net sales price of the software. Royalties are expensed as a part of cost of sales at a rate of 10%, decreasing to 5% after a minimum royalty payment is met.

During 1997, the Company entered into a \$636,000 product development agreement with a specific customer, which required various modifications and enhancements to the Company's Series 9000 product. The Company recorded all revenue related to this development agreement in 1997. These revenues offset related costs incurred to develop the modifications and enhancements. The ownership of the technologies created as a result of this development agreement remains with the Company. No royalties or other considerations are required as a part of this agreement.

During 1998, the Company entered into a \$200,000 custom development project with a specific customer. The project involved adding fluorescent bar code printing and reading to the Series 9000 scanner and adding additional stacker modules to accommodate document sorting requirements. The Company recorded all revenue related to this development agreement in 1998. These revenues offset related costs incurred to develop the modifications and enhancements. The ownership of the technologies created as a result of this development agreement remains with the Company. No royalties or other considerations are required as a part of this agreement.

NOTE I - EMPLOYEE BENEFITS

The Company maintains a Retirement Savings Plan for United States employees. Under this plan, all employees may contribute up to 15% of their salary to a retirement account up to the maximum amount allowed by law. The Company contributed an amount equal to 50% of the first 6% contributed by the participant in 1998 and 50% of the first 4% in 1997 and 1996. The Company's contributions to this plan were \$329,000, \$215,000, and \$189,000 in 1998, 1997, and 1996, respectively.

The Company sponsors an Employee Stock Ownership Plan (the "Plan") covering substantially all full-time employees. The Plan, which is a tax qualified employee benefit plan, was adopted by the Board of Directors of the Company in 1988 to provide retirement benefits for employees. The Plan borrowed \$1,325,000 to purchase 260,000 shares of the Company's stock to be allocated to participants ratably over a ten year period. The ESOP loan was guaranteed by the Company and the outstanding balance of the loan was repaid in 1991. In 1998, the Company did not allocate any additional shares to the Plan and at December 31, 1998, all shares had been allocated. Expenses related to the Plan in 1997 and 1996 were \$132,481 for each year. The Company, at its discretion, may make annual allocations to the Plan in the future.

NOTE J - INCOME TAXES

At December 31, 1998, the Company has approximately \$450,000, \$2,600,000 and \$800,000 of net operating loss carryforwards for Canada, the United Kingdom and Germany, respectively, which are scheduled to expire periodically between 1999 and 2005. At December 31, 1997, the Company had approximately \$600,000, \$2,500,000 and \$700,000 of net operating loss carryforwards for Canada, the United Kingdom and Germany, respectively. For financial reporting purposes a valuation allowance has been recorded for 1998 and 1997 to offset a significant portion of the deferred tax assets related to the foreign net operating loss carryforwards and other temporary differences. In 1997, the valuation allowance was reduced by \$1,722,000 primarily due to the utilization of net operating loss carry forwards for U.S. tax purposes.

Income before income taxes is set forth in the following tabulation:

<TABLE>  
<CAPTION>

(thousands)	Year Ended December 31		
	1998	1997	1996
<S>	<C>	<C>	<C>
Domestic	\$ 3,228	\$ 6,649	\$ 4,523
Foreign	6	(958)	(1,258)
Income before income taxes	\$ 3,234	\$ 5,691	\$ 3,265

</TABLE>

<TABLE>  
<CAPTION>

Income taxes (benefit) are summarized as follows:

(thousands)	Year Ended December 31		
	1998	1997	1996
<S>	<C>	<C>	<C>
Current (benefit):			
Federal	\$ 944	\$ 418	
State	311	68	\$ 60
Foreign	(5)	(33)	(69)
Total current (benefit)	\$1,250	\$ 453	\$ (9)
Deferred (benefit):			
Federal	\$ (129)	\$ (491)	
State	(16)	(61)	
Total deferred (benefit)	\$ (145)	\$ (552)	
	\$1,105	\$ (99)	\$ (9)

</TABLE>

Significant components of the Company's deferred tax liabilities and assets

were as follows:

<TABLE>  
<CAPTION>

(thousands)	December 31	
	1998	1997
<S>	<C>	<C>
Deferred tax assets:		
Net operating losses	\$ 1,475	\$ 1,479
Depreciation	92	92
Inventory valuation	174	275
Inventory	115	
Deferred maintenance revenue	178	130
Accounts receivable reserves	26	36
Goodwill	59	
Revenue recognition - systems undergoing acceptance testing		347
Vacation accrual	188	193
Other	162	287
Total deferred tax assets	2,498	2,839
Deferred tax liabilities:		
Depreciation and other	(84)	(486)
Inventory		(80)
Total deferred tax liabilities	(84)	(566)
Valuation allowance	(1,717)	(1,721)
Net deferred taxes	\$ 697	\$ 552

</TABLE>

A reconciliation of the statutory tax rate to the effective rate is as follows:

<TABLE>  
<CAPTION>

	Year Ended December 31		
	1998	1997	1996
<S>	<C>	<C>	<C>
Statutory federal income tax rate	34%	34%	34%
State income taxes, net of federal benefit	7		2
Foreign sales corporation benefit	(9)	(5)	
Foreign income taxes (benefit)		(1)	(2)
Net operating loss carryforward (benefit)		(30)	(34)
Other	2		
Effective tax rate	34%	(2)%	0%

</TABLE>

NOTE K - LEASE COMMITMENTS

The Company's principal lease commitments are for its corporate office and manufacturing facility in Manchester, Connecticut, professional services, software engineering and support, administration and equipment demonstration facility in Birmingham, Alabama, and its research and development facility in Berkeley, California. The Manchester lease expires on December 31, 2006, the Birmingham lease expires on December 31, 1999 and the Berkeley lease expires on December 31, 2000. Minimum rental payments for all noncancelable leases which are operating leases with terms equal to or in excess of one year as of December 31, 1998 are as follows:

<TABLE>  
<CAPTION>

(thousands)	Minimum Rental Payments
-------------	-------------------------

<S>	<C>
1999	\$ 878
2000	654
2001	567
2002	537
2003	492
Thereafter	1,072
-----	
Total minimum lease payments	\$ 4,200
	=====

</TABLE>

Rental expense for the years ended December 31, 1998, 1997, and 1996 was \$795,000, \$580,000, and \$678,000, respectively.

NOTE L - CONTINGENCIES

There are no lawsuits pending against the Company.

NOTE M - SEGMENT INFORMATION

Business segment data and geographic area data for the years ended 1998, 1997 and 1996 as included on pages 13 and 14 of this report are an integral part of these financial statements.

NOTE N - BILL AND HOLD TRANSACTIONS

Revenue relating to sales of certain equipment (principally optical character recognition equipment) is recognized upon acceptance of the related application software. When customers, under the terms of specific orders or contracts, request that the Company manufacture and invoice the equipment on a bill and hold basis, the Company recognizes revenue based upon an in-house acceptance test that is certified by the customer. Revenues recorded during 1998, 1997 and 1996 included bill and hold transactions of \$3.7 million, \$12.1 million and \$10.8 million, respectively. Accounts receivable included bill and hold receivables of \$1.7 million, \$4.7 million and \$4.9 million at December 31, 1998, 1997 and 1996, respectively.

NOTE O -- EARNINGS PER SHARE

The following table sets forth the computation of basic and diluted earnings per share:

<TABLE> <CAPTION>	December 31		
(thousands, except share data)	1998	1997	1996
<S>	<C>	<C>	<C>
-----			
Numerator:			
Net Income	\$ 2,129	\$ 5,790	\$ 3,274
=====			
Denominator:			
Denominator for basic earnings per share (weighted-average shares)	6,921,331	6,632,248	6,530,244
Effect of dilutive securities:			
Employee stock options	181,327	437,765	185,698
Denominator for diluted earnings per share (adjusted weighted-average shares and assumed conversions)	7,102,658	7,070,013	6,715,942
=====			
Basic earnings per share	\$ .31	\$ .87	\$ .50
=====			
Diluted earnings per share	\$ .30	\$ .82	\$ .49
=====			

</TABLE>

NOTE P - QUARTERLY RESULTS OF OPERATIONS (UNAUDITED)

The following is a summary of the quarterly results of operations for the years ended December 31, 1998 and 1997.

<TABLE>  
<CAPTION>

(thousands, except per share amounts)	MAR. 31	JUN. 30	SEP. 30	DEC. 31
<S>	<C>	<C>	<C>	<C>
1998				
Revenues	\$ 12,892	\$ 9,704	\$ 11,822	\$ 19,553
Cost of product sales and service expenses	8,668	5,864 (b)	7,319	12,177
Net income	428	140 (b)	274	1,287 (a)
Basic earnings per share	.06	.02 (b)	.04	.19 (a)
Diluted earnings per share	\$ .06	\$ .02 (b)	\$ .04	\$ .19 (a)
1997				
Revenues	\$ 12,430	\$14,061	\$ 14,828	\$ 15,289
Cost of product sales and service expenses	8,226	8,939	9,463	8,838
Net income	618	1,341	1,436	2,395
Basic earnings per share	.09	.20	.22	.35
Diluted earnings per share	\$ .09	\$ .19	\$ .20	\$ .33

</TABLE>

Certain quarterly expenses have been reclassified to conform to the year end presentation.

(a) In the Company's fourth quarter press release dated February 25, 1999, net income and diluted earnings per share for the year ended December 31, 1998 were correctly reported as \$2,129 and \$.30, respectively. However, the 1998 fourth quarter net income and earnings per share were incorrectly reported as \$1,457 and \$.21 basic and diluted earnings per share, respectively. The quarterly data in the above table reflect the correct amounts.

(b) On September 14, 1998, the Company filed a Form 10-Q/A for the quarterly period ended June 30, 1998. Amounts previously reported in its quarterly report on Form 10-Q for the quarterly period ended June 30, 1998 were amended as follows:

<TABLE>  
<CAPTION>

(thousands, except per share amounts)	Three months ended		Six months ended	
	June 30, 1998		June 30, 1998	
	Form 10-Q/A	Form 10-Q	Form 10-Q/A	Form 10-Q
<S>	<C>	<C>	<C>	<C>
Revenues	\$9,704	\$9,704	\$22,596	\$22,596
Cost of product sales and service expenses	5,864	5,351	14,533	14,020
Net income	140	453	568	881
Basic earnings per share	.02	.07	.08	.13
Diluted earnings per share	\$ .02	\$ .06	\$ .08	\$ .12

</TABLE>

#### ITEM 9 - CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

#### PART III

#### ITEM 10 - DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

Information pertaining to Directors and additional information pertaining to Executive Officers is included, under the captions "Governance of the Company" and "Compliance with Section 16(a) of the Securities Exchange Act of 1934" in the Company's definitive proxy statement for the Annual Meeting of Stockholders to be held on May 20, 1999 and is incorporated herein by reference and made a part hereof.

#### ITEM 11 - EXECUTIVE COMPENSATION

This information is included in the Company's definitive proxy statement for the Annual Meeting of Stockholders to be held on May 20, 1999 and is incorporated herein by reference.

ITEM 12 - SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

This information is included, under the captions "Security Ownership of Certain Beneficial Owners" and "Share Ownership of Management", in the Company's definitive proxy statement for the Annual Meeting of Stockholders to be held on May 20, 1999 and is incorporated herein by reference.

ITEM 13 - CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

This information is included, under the caption "Certain Transactions", in the Company's definitive proxy statement for the Annual Meeting of Stockholders to be held on May 20, 1999 and is incorporated herein by reference.

PART IV

ITEM 14 - EXHIBITS, FINANCIAL STATEMENT SCHEDULE AND REPORTS ON FORM 8-K

(a) The following consolidated financial statements and report of independent auditors of the Company and its subsidiaries are included in Item 8:

(1) Report of Independent Auditors

Consolidated Balance Sheets at December 31, 1998 and 1997

Consolidated Statements of Income for the years ended  
December 31, 1998, 1997 and 1996

Consolidated Statements of Stockholders' Equity for the  
years ended December 31, 1998, 1997 and 1996

Consolidated Statements of Cash Flows for the years ended  
December 31, 1998, 1997 and 1996

Notes to Consolidated Financial Statements - December 31, 1998

(2) The following consolidated financial statement schedule is  
included in Item 14(a):

Schedule II -- Valuation and Qualifying Accounts

All other schedules for which provision is made in the applicable accounting regulation of the Securities and Exchange Commission are not required under the related instructions or are inapplicable, and therefore have been omitted.

(3) LISTING OF EXHIBITS

\*3.1(a) Certificate of Incorporation, including amendments thereto  
(filed as Exhibit 3.1 to the Company's Registration Statement  
on Form S-1, File No. 2-70277).

\*3.1(b) Amendments to Certificate of Incorporation adopted May 17,  
1984, included in Exhibits A, B, C and D in the Company's  
proxy statement dated April 17, 1984 for the Annual Meeting of  
Stockholders held May 17, 1984.

\*3.1(c) Amendment to Article Tenth of the Certificate of  
Incorporation included as Exhibit A in the Company's proxy  
statement dated April 16, 1987 for the Annual Meeting of  
Stockholders held May 19, 1987

\*3.2(a) By-laws of the Company (filed as Exhibit 3.2 to the Company's  
Registration Statement on Form S-1, File No. 2-70277).

\*3.2(b) Amendments to By-laws of the Company adopted May 17, 1984,  
included in Exhibits A and B in the Company's proxy statement  
dated April 17, 1984 for the Annual Meeting of Stockholders  
held May 17, 1984.

\*3.2(c) Amendment to By-laws of the Company adopted at the meeting of  
the Board of Directors on January 28, 1991, included as  
Exhibit 3.2(c) in the Company's Annual Report on Form 10K  
filed for the year ended December 31, 1991.

\*+10.1 The Scan-Optics, Inc. 1979 Incentive and Non-Qualified Stock  
Option Plan included in Exhibit B in the Company's Proxy  
statement dated June 8, 1979 for the Annual Meeting of  
Stockholders held on June 27, 1979.

- \* +10.2 The Scan-Optics, Inc. 1984 Incentive and Non-Qualified Stock Option Plan included in Exhibit E in the Company's Proxy statement dated April 19, 1984 for the Annual Meeting of Stockholders held on May 17, 1984.
- \* +10.3 The Scan-Optics, Inc. 1987 Incentive and Non-Qualified Stock Option Plan included in Exhibit B in the Company's Proxy statement dated April 16, 1987 for the Annual Meeting of Stockholders held on May 19, 1987.
- \* +10.4 The Scan-Optics, Inc. 1990 Incentive and Non-Qualified Stock Option Plan included in Exhibit A in the Company's Proxy statement dated April 30, 1990 for the Annual Meeting of Stockholders held on June 12, 1990.
- \* +10.5 The Scan-Optics, Inc. 1990 Stock Option Plan for Outside Directors included in Exhibit B in the Company's Proxy statement dated April 30, 1990 for the Annual Meeting of Stockholders held on June 12, 1990.
- \* +10.6 Employment agreement between Richard I. Tanaka and Scan-Optics, Inc. effective September 5, 1989, included as Exhibit 10.7 in the Company's Annual Report on Form 10-K filed for the year ended December 31, 1991.
- \* +10.7 Severance agreement between Clarence W. Rife and Scan-Optics, Inc. dated December 17, 1986, included as Exhibit 10.8 in the Company's Annual Report on Form 10-K filed for the year ended December 31, 1991.
- \* +10.8 Executive severance agreement between certain officers and Scan-Optics, Inc. dated July 28, 1992, included as Exhibit 10.8 in the Company's Annual Report on Form 10-K filed for the year ended December 31, 1992.
- +10.9 Amendment No. 1 to Employment Agreement, dated as of December 31, 1996, between Scan-Optics, Inc. and Richard I. Tanaka.
- +10.10 Employment agreement, effective as of December 31, 1996, between Scan-Optics, Inc. and James C. Mavel.
- \* 22. List of subsidiaries of the Company, included as Exhibit 10.8 in the Company's Annual Report on Form 10-K filed for the year ended December 31, 1993.
- 23. Consent of Independent Auditors.
- 27. Financial Data Schedule.

\* Exhibits so marked have heretofore been filed by the Company with the Securities and Exchange Commission and are incorporated herein by reference.

+ Management contract for compensatory plan or arrangement required to be filed as an exhibit to this form pursuant to Item 14(c) of this report.

(b) REPORTS ON FORM 8-K

No report on Form 8-K was filed for the quarter ended December 31, 1998.

(c) EXHIBITS

The exhibits required by this item are included herein.

(d) FINANCIAL STATEMENT SCHEDULE

The response to this portion of Item 14 is submitted as a separate section of this report.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this annual report to be signed on its behalf by the undersigned, thereunto duly authorized.

SCAN-OPTICS, INC.

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Registrant

By: \_\_\_\_\_ /ss/  
 \_\_\_\_\_  
 James C. Mavel  
 Chairman, Chief Executive Officer,  
 President and Director  
 Date: March 23, 1999

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant in the capacities and on the dates indicated.

\_\_\_\_\_  
 /SS/  
 \_\_\_\_\_  
 James C. Mavel  
 Chairman, Chief Executive Officer,  
 President  
 and Director  
 (Principal Executive Officer)  
 Date: March 23, 1999

\_\_\_\_\_  
 /SS/  
 \_\_\_\_\_  
 Michael J. Villano  
 Chief Financial Officer, Vice President and  
 Treasurer  
 (Principal Financial and Accounting Officer)  
 Date: March 23, 1999

\_\_\_\_\_  
 /SS/  
 \_\_\_\_\_  
 Logan Clarke, Jr.  
 Director March 23, 1999

\_\_\_\_\_  
 /SS/  
 \_\_\_\_\_  
 Richard J. Coburn  
 Director March 23, 1999

\_\_\_\_\_  
 E. Bulkeley Griswold  
 Director March 23, 1999

\_\_\_\_\_  
 /SS/  
 \_\_\_\_\_  
 Lyman C. Hamilton, Jr.  
 Director March 23, 1999

\_\_\_\_\_  
 /SS/  
 \_\_\_\_\_  
 John J. Holton  
 Director March 23, 1999

\_\_\_\_\_  
 /SS/  
 \_\_\_\_\_  
 Robert H. Steele  
 Director March 23, 1999

A majority of the Directors

<TABLE>  
 <CAPTION>

SCHEDULE II

SCAN-OPTICS, INC. AND SUBSIDIARIES  
 VALUATION AND QUALIFYING ACCOUNTS  
 THREE YEARS ENDED DECEMBER 31, 1998, 1997 AND 1996  
 (thousands)

COLUMN A	COLUMN B	COLUMN C		COLUMN D	COLUMN E
Description	Balance at Beginning Of Period	Charged to Costs and Expenses	Additions Charged to Other Accounts	Deductions (1)	Balance at End of Period
<S> Year ended December 31, 1998:	<C> \$ 104	<C>	<C> \$ 149(2)	<C> \$ 47	<C> \$ 206

Reserve for doubtful accounts				
Year ended December 31, 1997:	\$ 673	\$ 424	\$ 993	\$ 104
Reserve for doubtful accounts				
Year ended December 31, 1996:	\$ 413	\$ 711	\$ 451	\$ 673
Reserve for doubtful accounts				

</TABLE>

- (1) Uncollectible accounts written off, net of recoveries.
- (2) Represents reclassifications from other accounts.

The required information regarding the valuation allowance for deferred tax assets is included in Note J.

EXHIBIT 23 -- CONSENT OF INDEPENDENT AUDITORS

We consent to the incorporation by reference in the Registration Statements (Form S-8 No. 33-37253, Form S-8 No. 33-37829, Form S-8 No. 33-16362, Form S-8 No. 2-93268 and Form S-8 No. 2-65503) of Scan-Optics, Inc. of our report dated February 16, 1999, with respect to the consolidated financial statements and schedule of Scan-Optics, Inc. and subsidiaries included in this Annual Report (Form 10-K) for the year ended December 31, 1998.

Ernst & Young LLP

Hartford, Connecticut  
March 23, 1999

<TABLE> <S> <C>

<ARTICLE> 5

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EXHIBIT 27.

SCAN-OPTICS, INC.  
FINANCIAL DATA SCHEDULE

<S>	<C>	<C>	<C>
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<FISCAL-YEAR-END>	DEC-31-1998	DEC-31-1997	DEC-31-1996
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<RECEIVABLES>	22,682,000	15,695,000	9,262,000
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<CURRENT-ASSETS>	36,893,000	34,635,000	26,735,000
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<DEPRECIATION>	16,367,000	15,355,000	15,147,000
<TOTAL-ASSETS>	52,992,000	38,707,000	31,121,000
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<COMMON>	147,000	144,000	139,000
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<SALES>	32,413,000	41,361,000	30,275,000
<TOTAL-REVENUES>	53,971,000	56,608,000	46,034,000
<CGS>	19,335,000	25,066,000	19,622,000
<TOTAL-COSTS>	50,899,000	51,066,000	42,851,000
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<INCOME-TAX>	1,105,000	(99,000)	(9,000)
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<CHANGES>	0	0	0
<NET-INCOME>	2,129,000	5,790,000	3,274,000

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<EPS-DILUTED>	.30	.82	.49

</TABLE>